

### **ABSTRACT**

A heating and air-conditioning system allows heating and cooling of a vehicle while the primary engine of the vehicle not operating. The auxiliary engine has an electrical generating device for generating electricity. A radiator is connected to the auxiliary engine for receiving engine coolant. A heater element is in communication with the radiator for receiving part of the coolant. A fan powered by the electrical generating device discharges air through the heater element and into the vehicle. The auxiliary engine also powers an air-conditioning unit for supplying cool air. An electrical motor drives a pump for pumping an engine lubricant to and from the auxiliary engine. An oil filter treats the lubricant.